



### Water-tight bed and nappy liner

Draw sheets for children and the sick which comprise a water-tight pad which is closed all the way round and 5 of which the side which is directed towards the body is perforated in order to allow the secreted fluids to pass into the interior of the pad and to collect there, from where they can be discharged through an opening, are known. The known arrangements of this type can only 10 be used as draw sheets, and they are very difficult to clean on account of the interior being inaccessible.

The spacing used to maintain the cavity in this pad is formed by inserted air or water tubes. The former 15 usually become brittle and start to leak after a short period of time, and the latter are hard and therefore uncomfortable for the sick person. Anyway, it is also the case that, on account of the large spacings between the tubes and the resulting unevenness of the surface, 20 these pads do not provide any permanently comfortable and pressure-free support for the body.

Bag-like draw sheets which are perforated on the upper side are also already known, but these were not 25 provided with means for keeping the bag walls apart from one another.

The draw sheet according to the invention does not have the cited drawbacks and can also be used as a nappy 30 liner for infants.

The new arrangement is illustrated in the drawing, in which, to be precise:

Figure 1 is a plan view of the liner,  
35 Figure 2 is the cross section along C-D of Figure 1,  
and  
Figure 3 is the longitudinal section along A-B of  
Figure 1.

The liner comprises a bag which is formed by the walls a and b and is made of rubber or some other suitable impermeable material. These walls are kept at a certain 5 spacing apart from one another by one wall being provided with ribs c. These ribs are advantageously provided on the wall which is directed towards the infant because then the upper wall, on account of the greater circumference formed by it, is pulled tight 10 over the ribs, with the result that channels which serve for receiving the moisture form between the ribs. Providing the ribs on the said side also has the further advantage that the surface which is directed towards the body is fairly even and the hard, 15 downwardly directed beads of the ribs do not press into the body. The liquid is delivered through small openings e in the wall which is directed towards the body. A tap d which is provided at the lowermost end of the bag serves for discharging the liquid which has 20 collected. It is also possible for the interior of the arrangement to be filled, in a known manner, with a moisture-absorbing material which is renewed from time to time; this then renders the outflow point superfluous.

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A protective strip f is disposed at the upper end of the arrangement and has its upper edge fastened on the liner between g-h.

30 This protective strip has the task of preventing the moisture from advancing further from the sheath enveloping the lower part of the body into the clothing on the upper part of the body. For the purpose of enveloping the lower part of the body, a nappy is 35 placed on the liner, to be precise the upper end thereof is pushed beneath the protective strip f. Since the nappy is then covered over in the upward direction by the protective strip, this prevents the moisture from passing into the item of clothing on the upper

part of the body. The liner is then placed around the infant's body such that the back and both sides are covered by the perforated wall *a*, while a flap *i* attached to the liner covers mainly the front side of  
5 the body.

The impermeability of the rubber sheath makes it necessary to provide air holes in the attachment flap in order to allow better transpiration. Such air holes  
10 *k* are provided, according to Figure 1, on the chest side of the liner. In order, however, that this liner does not fit tightly, for example, but rather a cavity forms around each of the openings in order to provide better venting, the holes are surrounded by beads *l* on  
15 the inside of the attachment flap.

The two loose ends *m* and *n* of the protective strip *f* serve for fastening the sheath and may be provided, corresponding to the purpose for which they were  
20 intended, for example with hooks, eyes or clasps.

Although the abovementioned ribs *c* may be mounted separately, they are suitably produced in one piece with the wall *a*. Moreover, these ribs can run obliquely  
25 in the downward direction from both sides towards the centre, in order to allow easier outflow to the tap *d*.

The liner can be cleaned extremely easily and very thoroughly. This is because, since the rubber bag is  
30 open at the top, the cleaning water is simply poured in there and can flow out again through the openings *e* and the tap *d*.

PATENT CLAIMS:

1. Water-tight bed and nappy liner comprising a bag which is perforated on the upper side,  
5 characterized in that the spacing between the two walls is formed by ribs which are in one piece with the upper, perforated cover, in order for the lower wall to be pulled tight during use in order for the outflow channels between the ribs to be  
10 formed to better effect.
2. Liner according to Claim 1, characterized in that the ribs are provided with a wide surface area and are disposed at reasonable spacings apart from one  
15 another in order that the outer surface, which comes into contact with the body, remains as even as possible and the body is not subjected to pressure by the ribs.
- 20 3. Liner according to Claims 1 and 2, characterized by the provision of a protective strip (f) in order to prevent the moisture from being conducted further through the clothing.
- 25 4. Liner according to Claims 1 to 3, characterized in that, in order to allow better transpiration, the attachment flap is provided with holes surrounded by beads.

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1 associated sheet of drawings.

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Fig. 1

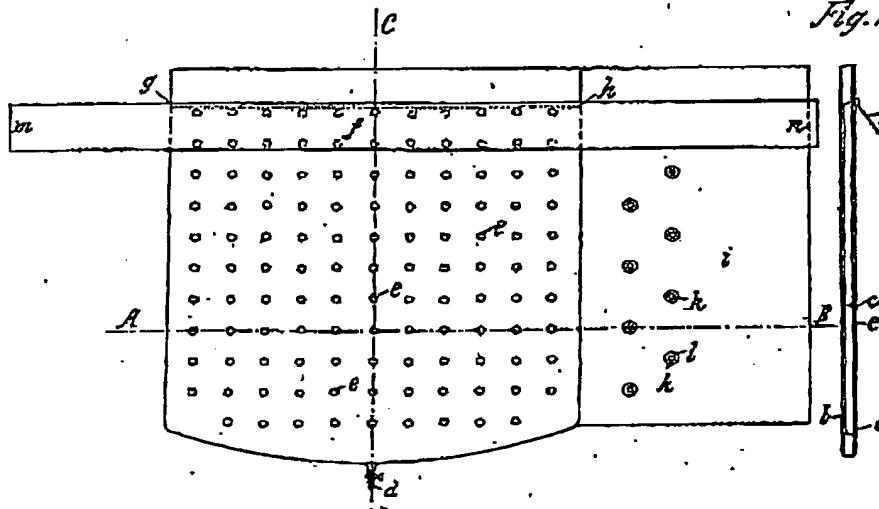
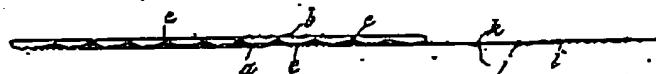


Fig. 2



Fig. 3



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